

# College of Engineering and Computer Science

## General Admission Requirements

All general admission requirements of the Graduate School at Southern University apply for admission to the Master of Engineering program.

Additional requirements include a minimum GRE score of 298 and a minimum GPA of 2.7 for all undergraduate coursework (or 3.0 for all graduate work) completed – based on a 4.0 scale.



For further information, please contact:

**Master of Engineering Program**  
**Southern University and A&M College**  
**PO Box 9969**  
**Baton Rouge, Louisiana 70813**

Phone: (225) 771-5290  
E-mail: [MENG@engr.subr.edu](mailto:MENG@engr.subr.edu)  
Website: [www.engr.subr.edu/MEng](http://www.engr.subr.edu/MEng)



Southern University Office of Media Relations and Publications 2015.

## Master of Engineering



Southern University and A&M College

# Southern University and A&M College • College of Engineering and Computer Science

## Master of Engineering

### Why Pursue a Master of Engineering

A master degree in engineering prepares students for top, high-growth, engineering positions in business and industry. The program focuses on technologies that equip students with the knowledge and experience required for employment in the following specialty areas:

#### Specialty Area 1: Materials Science and Engineering

##### Track 1: Advanced Engineering Materials

This track offers in-depth treatment of topics like advanced composites, fracture and fatigue, synthesis and processing of advanced materials, materials characterization, and materials performance and modeling.

##### Track 2: Electronic Materials and Processing Engineering

This track involves semiconductor materials properties and device physics, emphasizing integrated-circuit design for analog applications.

#### Specialty Area 2: Sustainable Systems Engineering

##### Track 1: Environmental and Water Resources Engineering

This track provides in-depth treatment of topics such as biological treatment, advanced wastewater treatment, industrial wastes, conveyance of water and wastewater in sewer systems, groundwater, and air pollution.

##### Track 2: Thermal Science and Engineering

This track focuses on energy management and applications, computational methods, thermal environmental engineering, and applied heat transfer.

##### Track 3: Telecommunications and Computer Network Engineering

This track emphasizes on digitization process, information transmission and communications protocols, on-voice and data network architectures and design.

#### Specialty Area 3: Engineering Management

This specialty area is specifically designed to provide business management and technical skills to engineering professionals. The program includes foundation courses in economics, negotiations, marketing, supply chain and management, decisions analysis and innovative product design that will help improve efficiency, product delivery, budgeting and decision making. Many of the courses within this track are available through the Southern University MBA program within the College of Business.

### Why Southern University

The College of Engineering and Computer Science is one of the most prestigious engineering programs in the nation and one of the top producers of minority engineering graduates. The College is housed in a multi-million dollar facility equipped with a high-tech auditorium, multi-media classrooms, and state-of-the-art computing, electronics, mechanical, thermal, material characterization, fluid mechanics, and mechatronics teaching and research laboratories.

Furthermore, our accomplished faculty are student-focused and nurturing in their attempt to achieve wholesome educational goals.

### Degree Options

The Master of Engineering program offers two degree-options:

- (1) Master of Engineering - thesis
- (2) Master of Engineering - project

The thesis option is recommended for those students wishing to conduct basic research and perhaps pursue a doctoral degree in the future. The student must conduct research, write a thesis, and defend it.

The Master of Engineering (thesis) degree is awarded upon completion of at least 30 semester credit hours beyond the bachelors degree -- including twenty-four (24) credit hours for coursework and six (6) credit hours for research thesis.

The project option is recommended for those students wishing to complete an engineering project under the supervision of experienced engineers in industry and/or government, and a graduate faculty advisor. The engineering project provides an opportunity to enhance important employment skills such as robust engineering, decision analysis, economic analysis, communications, organizational assessment, business and project management, and integrated teamwork.

The Master of Engineering (project) degree is awarded upon completion of at least 36 semester credit hours beyond the bachelors degree -- including thirty (30) credit hours for coursework and six (6) credit hours for engineering project.



### Program Objective

The objective of the program is to prepare graduates for leadership positions in the engineering profession. Emphasis is placed on solving practical problems in industry, and society in general, for the advancement of technology.

The Master of Engineering program is interdepartmental and interdisciplinary with three specialty areas:

Area 1: Materials Science and Engineering

- Track 1: Advanced Engineering Materials
- Track 2: Electronic Materials and Processing

Area 2: Sustainable Systems Engineering

- Track 1: Environmental and Water Resources
- Track 2: Thermal Science and Engineering
- Track 3: Telecommunication and Computer Network

Area 3: Engineering Management

### Scholarship Opportunities

Financial assistance is available to graduate students from a large number of sources. They are granted through the Graduate School, the College, or through various departments and divisions throughout the university, determined semester-by-semester across the academic year.

Students who are recipients of fellowships, scholarships, or assistantships from the Graduate School, the College, or a department are usually exempted from having to pay out-of-state fees.

Eligibility for an assistantship is governed by the following:

- (1) Student must be admitted into the Master of Engineering Degree program with regular status
- (2) Student must be enrolled full-time (nine or more credits hours) or ( six credit hours in summer session)

